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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,254	03/06/2006	Marc Verleyen	1803-2 PCT/US	8006
23869 7590 03/04/2010 HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791			EXAMINER MILLER, DANIEL H	
			ART UNIT	PAPER NUMBER
			1794	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,254	Applicant(s) VERLEYEN, MARC	
	Examiner DANIEL MILLER	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/9/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 and 42-47, 50-66 is/are pending in the application.
- 4a) Of the above claim(s) 55-60 and 63-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40, 42-47, 50-54, 61 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-21, and 22-40, 42-46, 47, 50-54, and 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels (US 3,940,522).

3. Wessels teaches an artificial turf filament where in the filament has a shape comprising a "central area" and "two wing area" on opposing sides of a central area and integral with said central area (see figure 2). The central area is considered to form a protruding bulb as claimed (see figure 2). The face is considered to have a face that is flush and merges into said adjacent faces of the wing area (see figures).

4. The filament is considered to be fortified with reinforcement fibers (9 and 11 of figure 3).

5. Wessels may be silent as to the presence of diverging orientation.

6. However Wessels teaches the random orientation of the fibers can be introduced into the fibers by varying spinning process that creates the fiber in order to simulate the randomness of natural grass fibers (see column 4 lines 35-45). Further Wessels,

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teaches wherein the fibers may have "biarcuate" or "gullwing" in cross sections wherein the thickness of the fiber decreases at the ends of the web fiber (column 3 lines 35-50).

7. To the extent to which there is a difference from the "biarcuate" or "gullwing", which it is not clear there is, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide divergent orientation fibers given the taught structures of Wessels and in order to simulate the random (non-uniform) features of natural grass.

8. Regarding claim 14, Wessels teaches that any polymer material can be used to spin the fiber, and gives several exemplary materials.

9. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide polyethelene fibers as claimed because they are a substantially similar material to that of nylon and polyamide taught by the reference and would be expected to function similarly and because it is a material known to be employed as a fiber material in the art at the time of the invention. No patentable distinction is seen.

10. Regarding claim 25 and 28-29, 34 and 36, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a variety of orientations, including those claimed by applicant, in order to more closely resemble real grass and the random orientation of natural grass.

11. Regarding claim 16 and 40, while the artificial turf filaments do not teach incorporating an organic material it would have been obvious to one of ordinary skill in the art at the time of the invention to provide in order to allow the artificial grass fiber of

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Wessels to more closely resemble a real grass fiber which is organic. No patentable distinction is seen.

12. Regarding claim 24, wherein the fiber is folded to form the central area the central area is considered to have a central area up to 100% thicker than the winged area or would otherwise be obvious to provide to allow for adhesion to the substrate or turf, wherein the fibers may have "biarcuate" or "gullwing" in cross sections wherein the thickness of the fiber decreases at the ends of the web fiber (column 3 lines 35-50).

13. Regarding claims 26-27, dependent upon whether the fiber is crimped or straight the center line may have a straight or curved orientation.

14. Regarding claims 30-31, the angle desired for forming the cross sections of the wings of the fiber are preferred to be 160 degrees or less, overlapping applicant's claimed range and rendering the claimed range obvious to one of ordinary skill in the art at the time of the invention.

15. Regarding claims 10 and 32, The thickness of the fiber is considered to taper at the ends of the wing section (column 3 lines 40-50).

16. Regarding claims 11 and 33, The free end of the wing tip has a rounded end (see column 2 lines 35-47).

17. The face of the wing section of the fiber can comprise a semicircular rib (see column 2 lines 37-50).

18. Regarding claims 37 and 38, the fiber can be a synthetic polymer including polyamide (see examples) or nylon (see column 4 lines 35-39).

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19. Regarding claim 39, the reinforcement fibers can include polyamide fibers embedded with main polyamide fibers meeting the limitations of claim 39 (see examples).
20. Regarding claims 17-21, the fibers can be bound by the middle section into a carpet (or substrate or turf) in bundles as claimed by applicant (see figures) and those bundles can be supported by wrapped supportive fibers (see figure 3 and 4 specifically and examples).
21. The wrapping filaments are considered to be bundled in a helical path (see figure 3).
22. The wrapping filaments are considered bonded to the main filaments in bundles (see figure 3) and function to release from the main filament upon normal use or brushing and have a thickness less than that of the main filaments (compare figures 3 and 4). The substrate can include a backing would act to ancore the fibers (see examples).
23. Wherein applicant has claimed a material or property being "preferably" soil as in claim 44 or "preferably" "in opposite directions" as in claim 47 those limitations are considered optional and not required by the claim language. No patentable distinction is seen.
24. The twisted fibers may be heat set to give the fiber a permanent spiral (bonding the fibers in a manner considered releasable) create the bundle of fibers of figure 3 (see column 6 lines 60-68).

Response to Arguments

25. Applicant's arguments filed 10/9/2009 have been fully considered but they are not persuasive.

26. Applicant has argued that the Wessels reference is silent as to the presence of diverging orientation of the fibers and further does not render the orientation obvious.

27. However, Wessels teaches the random orientation of the fibers can be introduced into the fibers by varying spinning process that creates the fiber in order to simulate the randomness of natural grass fibers (see column 4 lines 35-45). Further, Wessels teaches wherein the fibers may have "biarcuate" or "gullwing" in cross sections wherein the thickness of the fiber decreases at the ends of the web fiber (column 3 lines 35-50).

28. To the extent to which there is a difference from the "biarcuate" or "gullwing", which it is not clear there is, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide divergent orientation fibers given the taught structures of Wessels and in order to simulate the random (non-uniform) features of natural grass.

29. To the extent to which applicant has argued other characteristics of the fiber of the disclosed invention these characteristics have not been claimed and therefore applicant's arguments are outside the scope of the claimed invention.

30. Wherein applicant has claimed a material or property being "preferably" soil as in claim 44 or "preferably" "in opposite directions" as in claim 47 those limitations are

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considered optional and not required by the claim language. No patentable distinction is seen.

31. Rejections maintained.

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MILLER whose telephone number is (571)272-1534. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

/Daniel Miller/
Examiner, Art Unit 1794